

**Electronic Filing System (EFS) Data**  
**Electronic Patent Application Submission**  
**USPTO Use Only**

EFS ID: 14033  
Application ID: 09683884  
Title of Invention: METHOD FOR OPERATING A PRE-CRASH SENSING SYSTEM WITH OBJECT CLASSIFIER IN A VEHICLE HAVING A COUNTERMEASURE SYSTEM  
First Named Inventor: Manoharprasad Rao  
Domestic/Foreign Application: Domestic Application  
Filing Date: null  
Effective Receipt Date: 2002-02-27  
Submission Type: Utility Patent Filing  
Filing Type: new-utility  
Confirmation Number: 0  
Attorney Docket Number: 201-0939 FAM  
Digital Certificate Holder: cn=Damian Porcari, ou=Registered Attorneys, ou=Patent and Trademark Office, ou=Department of Commerce, o=U.S. Government, c=US  
Certificate Message Digest: pvlvbfYREwEplpGOLnf4Bw==  
Total Fees Authorized: \$780.0  
Payment Category: DA - Deposit Account  
Deposit Account Number: 61510  
Deposit Account Name: Sandra M. Lewis



# TRANSMITTAL FORM



Electronic Version 1.0.3

Stylesheet Version: 1.0

Attorney Docket  
Number:

201-0939  
FAM

Submission Type: Utility Patent  
Filing

## METHOD FOR OPERATING A PRE- CRASH SENSING SYSTEM WITH OBJECT CLASSIFIER IN A VEHICLE HAVING A COUNTERMEASURE SYSTEM

First Named Inventor: Manoharprasad K. Rao

### SUBMITTED BY

Organization Name:

Ford Motor Company

Name:

Saundra M. Lewis Electronic Filing  
Specialist

Electronic Signature Mark: /sml

Date Signed: 20020227

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**Attached Files:**

declaration	declaration1 of2.tif
declaration	declaration2of2.tif
declaration	consentletter.tif
declaration	infodisclosurestatement1 of2.tif
declaration	infodisclosurestatement2of2.tif
bid-transmittal	201-0939apds.xml
fee-transmittal	201-0939fee.xml
patent-assignments	201-0939asgn.xml
specification	Specification.xml

**Attached Image File(s):**

declaration1 of2.tif  
declaration2of2.tif  
consentletter.tif  
infodisclosurestatement1 of2.tif  
infodisclosurestatement2of2.tif



**DECLARATION AND POWER OF ATTORNEY - ORIGINAL APPLICATION**Attorney's Docket No.  
201-0939

As a below named inventor, I hereby declare:  
My residence, post office address and citizenship are as stated below next to my name;

I verily believe I am the original, first and sole inventor or an original, first and joint inventor of the subject matter that is claimed for which a patent is sought on the invention entitled

**METHOD FOR OPERATING A PRE-CRASH SENSING SYSTEM WITH OBJECT CLASSIFIER IN A VEHICLE HAVING A COUNTERMEASURE SYSTEM**

the specification of which is attached hereto.

I have reviewed and understand the contents of the specification identified above, including the claims.

I acknowledge my duty to disclose information of which I am aware that is material to the examination of this application in accordance with Section 1.56(a), Title 37 of the Code of Federal Regulations; and as to application for patents or inventor's certificate on the invention filed in any country foreign to the United States of America prior to this application by me or my legal representatives or assigns,

☐ no such applications have been filed, or

☒ such applications have been filed as follows:

☐ I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below

COUNTRY	APPLICATION NO.	DATE OF FILING (month, day, year)	DATE OF ISSUE (month, day, year)	PRIORITY CLAIMED UNDER 35 USC 119	<input type="checkbox"/> Additional provisional application numbers on a separate priority data sheet (PDS) attached
US	60/324137	9/21/2001		YES	

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s) or § 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56 which is available between the filing date of the prior application and the national or PCT International filing date of this application.

(Application Number) (Filing Date) (Status - patented, pending, abandoned)

(Application Number) (Filing Date) (Status - patented, pending, abandoned)

**POWER OF ATTORNEY:** - I/we hereby appoint the following Practitioners: Customer No. 28549, Kevin G. Mierzwa - 3, my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States and Trademark Office and all foreign Patent Offices.

**Address all correspondence and telephone calls to:**

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements jeopardize the validity of the application or any patent issuing thereon.

NAME AND MAILING ADDRESS OF INVENTOR:	RESIDENCE	CITIZENSHIP	SIGNATURE
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PATENT APPLICATION

ASSISTANT COMMISSIONER FOR PATENTS  
Washington, D. C. 20231

Case Docket No. 201-0939  
Date: February 27, 2002

Sir:

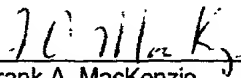
Inventor(s):

**Manoharprasad Rao**  
**Kwaku Prakah-Asante**  
**Gary Strumolo**  
**Samuel Ebenstein**

For: **METHOD FOR OPERATING A PRE-CRASH SENSING SYSTEM WITH OBJECT CLASSIFIER IN A  
VEHICLE HAVING A COUNTERMEASURE SYSTEM**

The attorney or agent below has reviewed this application and its attachments and consents to  
electronic filing by the assignee.

Respectfully submitted:

  
\_\_\_\_\_  
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Substitute for Form 1449A/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	Unassigned
				Filing Date	Filed Herewith
				First Named Inventor	Rao et al
				Group Art Unit	Unknown
				Examiner Name	Unknown
				Attorney Docket Number	201-0939 (FGT 1593 PA)
Sheet	1	Of	1		

[illegible][illegible]

Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609 Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language translation is attached.

Substitute for Form 1449B/PTO				<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				Application Number	Unassigned
				Filing Date	Filed Herewith
				First Named Inventor	Rao et al
				Group Art Unit	Unknown
				Examiner Name	Unknown
Sheet	1	of	1	Attorney Docket Number	201-0939 (FGT 1593 PA)

**OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	1	Lippman, Richard. "Pattern Classification Using Neural Networks"; IEEE Communication, Vol. 27, No. 11, pp. 45-65, Nov. 1989	
	2	Wan, Yue. "A New Edge Detector for Obstacle Detection with a Linear Stereo Vision System", Proceedings of the Intelligent Vehicles 1995 Symposium, Sep. 25-26, 1995, Detroit, USA, sponsored by IEEE Industrial Electronics Society, pp. 130-135, 1995.	
	3	Kruger, W. "Real-Time Estimation and Tracking of Optical Flow Vectors for Obstacle Detection", Proceedings of the Intelligent Vehicles 1995 Symposium, Sep. 25-26, 1995, Detroit, USA, sponsored by IEEE Industrial Electronics Society, pp. 304-309, 1995	
	4	Lipton, A.J., etc., "Moving Target Classification and Tracking From Real-Time Video", Proceedings of Image Understanding Workshop, 1998	
	6	Weiss, I., "Model-Based Recognition of 3D Object from One View", Proceedings of Image Understanding Workshop, 1998	
	7	Kamat, V. etc., "An Efficient Implementation of the Hough Transform for Detecting Vehicle License Plates Using DSP's", Proceedings of IEEE Real-Time Technology and Applications, Los Angeles, 1995.	
	8	Kamat, V. & Ganesan, S. "An Algorithm for Vehicle Identification Using Digital Signal Processors", Intl. Conf. On Signal Processing Applications and Technology, Vol. 1, 1993, pp. 875-888.	
	9	Schneiderman, H., "A Statistical Approach to 3D Object Detection Applied to Faces and Cars", CMU-RI-TR-00-06, 2000.	
	10	Zhao, L. and Thorpe, C., "Stereo-and Neural Network-Based Pedestrian Detection, Proc. ITSC'99, Tokyo, Japan, 1999.	

Examiner Signature		Date Considered	
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<sup>1</sup>EXAMINER. Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>2</sup>Unique citation designation number. <sup>3</sup>Applicant is to place a check mark here if English language Translation is attached.

# FEE TRANSMITTAL

Electronic Version 1.1.0

Stylesheet Version: 1.0

*Patent fees are subject to annual revisions on or about October 1st of each year.*

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**TOTAL FEES AUTHORIZED: \$ 780**

The commissioner is hereby authorized to charge indicated processing and/or publication fees and credit any overpayments to:

Deposit Account Number: 06-1510

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Charge Any Additional Fee Required Under 37 C.F.R. Sections 1.16 and 1.17.

Charge Assignment Fees Required Under 37 C.F.R. Section 1.21 (h).

**SUBMITTED BY**

Authorized Name: Sandra M. Lewis

Electronic Signature Mark: /sml

Date Signed: 20020227

## BASIC FILING FEE

Fee Description	Fee Code	Fee Paid
Utility Filing Fee	101	\$ 740

Subtotal For Basic Filing Fee: \$ 740

## EXTRA CLAIM FEES

	Fee Code	Fee	Extra Claims	Fee Paid
Total Claims: 20	103	\$ 18	0	\$ 0
Independent Claims: 3	102	\$ 84	0	\$ 0

Subtotal For Extra Claims Fees: \$ 0

ADDITIONAL FEES

Fee Description	Number	Quantity	Fee Code	Amount	Fee Paid
Recording Each Patent Assignment Per Property Fee	00000000	1	581	\$ 40	\$ 40

Subtotal For Additional Fees: \$ 40